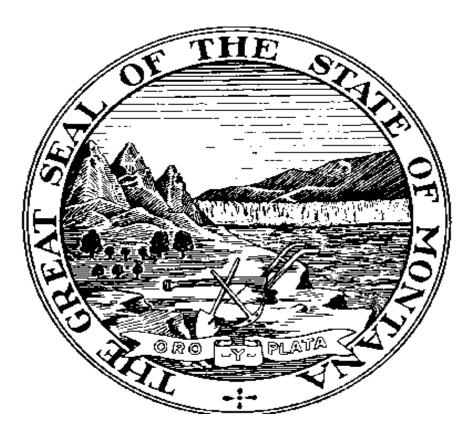
Asbestos

OSHA Standard Overview 29 CFR 1910.1001

Occupational Safety & Health Bureau



Montana Department of Labor & Industry

Prepared for Montana Employers by the

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Introduction

Asbestos is a widely used material in many man made products. Asbestos is made up of long, thin fibers that resemble fiberglass. These fibers are very strong and are resistant to heat and corrosive chemicals. Because of these properties, asbestos is used in heat and fire resistant fabrics and as thermal insulation.

Employers must implement programs to protect workers using material that contains asbestos fibers or when they are involved with the removal of asbestos.

Products that may contain asbestos include but are not limited to:

pipe-covering, asbestos cloth, gaskets, packing material, thermal seals, adhesives boiler insulation, transit boards, asbestos cement pipe, fireproofing spray, joint compound, vinyl floor tile, ceiling tiles, acoustical textures, roofing products duct insulation for heating, ventilation, and HVAC systems, insulated electrical wire, brake and clutch assemblies, and fire resistant drywall.

Some of these products contain a very high amount of asbestos, while others contain small amounts.

Asbestos fibers that are inhaled or ingested can create several different painful, disabling, and fatal lung and membrane tissue diseases. Some of these diseases include asbestosis, lung cancer, mesothelioma, stomach, and colon cancer. The symptoms of these diseases generally do not appear for 20 or more years after initial exposure.

In 1972, Occupational Safety and Health Administration (OSHA) started to regulate asbestos exposure in general industry causing a significant decline in the use of asbestos-containing materials. OSHA also revised the standard to include provisions that apply to workers performing brake and clutch repair and to workers doing housekeeping in facilities where asbestos-containing materials (ACM) exist.

This booklet provides an overview of OSHA=s worker protection requirements for exposure to asbestos in general industry and describes the steps an employer must take to reduce the levels of asbestos in their workplace. The revised rule lowers the permissible exposure limits (PELs), contains mandatory control methods for brake and clutch repairs, and provides training provisions for maintenance and custodial workers. OSHA General Industry standards for asbestos hazards are found at 29 CFR 1910.1001. OSHA also provides separate standards for the construction industry (29 CFR 1926.1101) and shipyards (29 CFR 1915.1001). Please see the end of this booklet for resources and ordering details if these standards may apply to your workplace.

A. Permissible Exposure Limits (PELs)

<u>Time-weighted average limit</u> (TWA). The employer will ensure that no employee is exposed to an airborne concentration of asbestos in excess of **0.1 fibers per cubic centimeter** (f/cc) of air as an eight-hour TWA.

<u>Excursion limit (EL)</u>. The employer shall ensure that no employee is exposed to an airborne concentration of asbestos in excess of **1.0 f/cc** as averaged over a sampling period of 30 minutes.

B. Toxicology of Asbestos

Routes of entry

Workers are primarily exposed to asbestos by breathing in fibers suspended in air. These asbestos fibers usually come from the degradation or breakdown of manmade products. Asbestos in poor condition can be easily crumbled and will release a higher concentration of fibers then new or good condition asbestos.

Inhalation. When asbestos fibers are inhaled into the lungs, some of the fibers will be deposited in the air passages and on the cells that make up the lungs. Very few of these fibers move through the lungs into the body. Instead, most fibers are removed from the lungs by being carried away in a layer of mucus to the throat, where they are swallowed into the stomach. This usually takes place within a few hours, but fibers that are deposited in the deepest parts of the lung are removed more slowly, and some can remain in place for many years and may never be removed.

Ingestion. If asbestos fibers are swallowed, nearly all of them pass along the intestines and are excreted within a few days. A small number of fibers become stuck in the cells that line the stomach or intestines, and a few penetrate all the way through and get into the blood. Fibers will also stick into the lining of the abdomen (peritoneum).

Health effects

The U.S. Department of Health and Human Services has determined that asbestos is a known carcinogen. Studies have shown that workers that were exposed to high levels of asbestos in the past have increased chances of getting two types of cancer: cancer of the lung tissue, and mesothelioma, a cancer of the thin membrane that surrounds the lung and other internal organs. Both lung cancer and mesothelioma are usually fatal. Workers breathing asbestos also may have an increased chance of getting cancer in other locations such as stomach, intestines, esophagus, pancreas, and kidneys

Breathing asbestos can also cause a slow accumulation of scar-like tissue in the lungs and in the membrane which surrounds the lungs. This scar-like tissue does not expand and contract like normal lung tissue and breathing becomes difficult. This lung tissue scaring is called asbestosis. Cigarette smoking can also increase the risk of developing lung cancer when combined with

asbestos exposure by up to 80 times.

Signs & Symptoms of Asbestosis

Some of the early symptoms of asbestosis include: shortness of breath; cough that produces little or no sputum; and a general sick feeling. Late symptoms include: Fitful sleep; appetite loss; chest pain; hoarseness; coughing blood; symptoms of congestive heart failure; and bluish finger nails. It is important that both employers and employees are aware of these symptoms so that workers can seek medical attention to prevent any further lung damage.

C. Asbestos Protection Program

An asbestos protection program should include at least the following:

- 1. Workplace and employee exposure monitoring.
- 2. Regulated areas.
- 3. Engineering controls.
- 4. Work practice controls.
- 5. Respiratory protection (if needed).
- 6. Personal protective equipment (PPE) and clothing.
- 7. Hygiene facilities and practices.
- 8. Housekeeping.
- 9. Communication of hazard to employees.
- 10. Medical surveillance.
- 11. Record keeping.

1. Exposure Monitoring

Workplaces that may contain asbestos or asbestos containing material shall be monitored to determine the airborne fiber concentration. Worker 8-hour TWA and excursion levels should be determined to indicate worker exposure.

Initial monitoring also must be performed for all employees who are, or may reasonably be expected to be, exposed to airborne concentrations of asbestos at or above the TWA or EL unless:

- (1) monitoring results conducted after March 31, 1992, meet all other standard-related requirements; and
- (2) the collected data demonstrate that asbestos is not capable of being released in airborne concentrations at or above the TWA and/or EL when materials are being processed, used, or handled.

If initial monitoring indicates that exposures are above the TWA and/or EL, periodic monitoring must be conducted at intervals no greater than every 6 months. If either initial or periodic monitoring statistically indicates that employee exposures are below the TWA and/or EL, the employer may discontinue monitoring for those employees whose exposures are represented by such monitoring.

The employer must reinitiate monitoring whenever there has been a change in the production, process, control equipment, personnel or work practices that may result in new or additional exposures to asbestos above the TWA and/or EL, or when the employer has reason to suspect that a change may result in new or additional exposures above the TWA and/or EL.

Affected employees and their representatives must be allowed to observe monitoring and must be notified in writing, either individually or by posting results in an accessible location within 15 working days after the receipt of the results of monitoring. This written notification must contain the corrective action being taken by the employer to reduce employee exposure to asbestos on or below the TWA and/or EL whenever monitoring results indicate that the TWA and/or EL has been exceeded. If monitoring is being observed in a regulated area, the observer must be provided PPE.

Please contact the Safety Bureau at 444-6401 if you need assistance in workplace monitoring.

2. Regulated Areas

The employer must establish and set apart a regulated area wherever airborne concentrations of asbestos and/ or presumed asbestos-containing material (PACM) exceeds the TWA and/ or EL. Only authorized personal may enter regulated areas. All persons entering a regulated area must be supplied with and are required to use an appropriate respirator. See 29 CFR 1910.1001(g) or 29 CFR 1926.1101(h) for a description of the asbestos respiratory protection requirements.

No smoking, eating, drinking, chewing tobacco or gum, or applying cosmetics in regulated areas should be allowed. This will reduce the risk of ingesting asbestos.

Warning signs must be displayed at each regulated area and must be posted at all approaches to regulated areas. Where necessary, signs must bear pictures or graphics, or be written in appropriate language so that all employees understand them. These signs must bear the following information:

DANGER
ASBESTOS
Cancer and Lung Disease
Hazard Authorized
Personnel Only
Respirators and Protective
Clothing
Are Required In This Area

In addition, warning labels must be attached to all asbestos products (raw materials, mixtures, scrap) and to all containers of asbestos products, including waste containers. The labels must comply with the requirements of 29 CFR 1910.1200(f) of OSHA=s Hazard Communication Standard and must include the following information:

DANGER
Contains Asbestos Fibers
Avoid Creating Dust
Cancer and Lung Disease Hazard

3. Engineering Controls

Before any work is done on a site that may contain asbestos, building owners must identify the presence, location, and quantity of asbestos containing materials (ACM) or possible asbestos containing materials (PACM) at the worksite. Asbestos work is divided into four categories, each with specific requirements.

Work Classes for Asbestos

Class I	Removal of Thermal System Insulation (TSI) & surfacing ACM/PACM
Class II	Removal of other ACM such as wallboards, resilient flooring, roofing, siding, & construction mastics
Class III	Repair & maintenance work where TSI & surfacing material is likely to be disturbed
Class IV	Maintenance and custodial activities in contact with ACM

Regulated areas must be established for all Class I, II, and III work and for all other work in which the PEL is exceeded. Class I and II work requires critical barriers and all classes require signs and barrier tape. Heating, ventilation, and air conditioning (HVAC) systems must be isolated in the regulated area by sealing with a double layer of 8-mil-thick polyethylene; impermeable dropcloths must be placed on surfaces beneath all removal activity.

Negative pressure enclosures (NPEs) are required for all class I work where it is feasible. The NPE must have a minimum of four air changes per hour and a negative pressure of at least 0.02 inches of water. The NPE must be smoke-tested at the beginning of each shift and all electrical equipment should have ground fault circuit interrupters. HEPA-filtered exhaust should be used to move air away from the breathing zone of employees for class I jobs where the PEL is exceeded.

To the extent feasible, engineering controls must be used to reduce and maintain employee exposure at or below the TWA and/or EL. The standard requires the employer to institute the following measures:

Design, construct, install, and maintain local exhaust ventilation and dust collection systems according to the American National Standard Fundamentals Governing the Design and Operation of Local Exhaust Systems, ANSI Z9.2-1979.

Provide a local exhaust ventilation system for all hand-operated and power-operated tools that produce or release fibers.

Use a NPE / HEPA vacuum system or a low-pressure / wet cleaning method during automotive brake and clutch inspection, disassembly, repair, and assembly operations.

An equivalent method can also be used if the employer demonstrates that the method being used achieves the required exposure reductions.

4. Work Practice Controls

Proper work practice controls should be used whenever possible to reduce the concentration of asbestos fibers in the workplace air. Below is a list of several work practice methods that should be used:

Do not remove cement, mortar, coating, grout, plaster, or similar materials containing asbestos from bags, cartons, or other containers that are being shipped without wetting, enclosing, or ventilation.

Use only wet cleanup methods to remove ACM waste or debris when feasible.

All waste and debris must be cleaned up promptly and placed in leakproof containers. HEPA-filtered vacuums should be used to remove loose dust in the area.

Glovebags may be used for the removal of TSI or other material that can be totally enclosed within the bag. Glovebags must be smoke tested before use to insure that there are no leaks

Tiles must be removed intact unless it is demonstrated not possible.

Resilient flooring must be removed using wet methods, unless heat is being used

Roofing material must be removed intact using wet methods to the extent feasible.

Cutting machines should be continuously misted and any dust must be immediately cleaned with a HEPA vacuum.

Roof-level HVAC intakes must be isolated while roof work is being performed.

Compressed air must never be used for asbestos removal unless in conjunction with enclosed ventilation system.

Employee rotation cannot be used as a means of reducing exposure to asbestos.

Where engineering and work practice controls have been instituted but are insufficient to reduce exposure to the required level, the employer must supplement them by using respiratory protection.

Where the TWA and/or EL is exceeded, the employer must establish and implement a written

program to reduce employee exposure to or below the TWA and EL by means of engineering and work practice controls and by the use of respirators where required and permitted.

5. Respiratory Protection

If engineering and work practice controls do not reduce the asbestos concentration to below the TWA and/or EL a respirator program must be used. Respiratory programs must comply with OSHA=s 29 CFR 1910.1001 (g) and 29 CFR 1910.134 (b) (d) (e) and (f). The respiratory protection program must be provided to employees free of charge.

Respirators must be selected, provided, and used in the following circumstances:

While feasible engineering and work practice controls are being installed or implemented;

During maintenance and repair activities, or other activities where engineering and work practice controls are not feasible;

In work situations where feasible engineering and work practice controls are not yet sufficient to reduce exposure to or below the TWA and/or EL; and

In emergencies.

Respirators must be selected from among those approved by the Mine Safety and Health Administration (MSHA) and the National Institute of Occupational Safety and Health (NIOSH) under the provisions of Title 30, CFR Part II. The employer must also provide a powered, airpurifying respirator in lieu of any negative-pressure respirator when the employee chooses it and when the respirator provides adequate protection.

Employees who use a filter respirator must use a high-efficiency filter and must change filters whenever an increase in breathing resistance occurs. Employees who wear respirators must be allowed to wash their faces and respirator face pieces whenever necessary to prevent skin irritation.

An employee must not be assigned to tasks requiring the use of respirators if a physician determines that the employee is unable to function normally wearing a respirator, or that the safety or health of the employee or other employees will be impaired by the use of a respirator. The table listed below lists the types of respirators that can be used for asbestos exposures:

Airborne concentration of asbestos or condition of use	Required Respirator
Not in excess of 1 f/cc (10 x PEL)	Half-mask, air-purifying respirator other than disposable, equipped w/high efficiency filters.
Not in excess of 5 f/cc (50 x PEL)	Full face piece air-purifying, equipped with high efficiency filters.
Not in excess of 10 f/cc (100 x PEL)	Any powered air-purifying, w/ high efficiency filters or any supplied air respirator operated in continuous flow mode.
Not in excess of 100 f/cc (1,000 x PEL)	Full face piece supplied air respirator operated in pressure demand mode.
Greater than 100 f/cc or unknown	Full face piece supplied air respirator operated in pressure demand mode, equipped w/ an auxiliary positive pressure self-contained breathing apparatus.

The employer must ensure that the respirator issued to an employee fits properly and exhibits minimum leakage. Employers also must perform quantitative or qualitative fit tests, whichever are appropriate, at the time of initial fitting and at least every 6 months for each employee wearing negative-pressure respirators. Protocols for fit tests are set forth in 29 CFR 1910.1001 Appendix C of the standard

6. Personal Protective Equipment and Clothing

If workers are exposed to asbestos above the TWA and/or EL, or where the possibility of eye irritation exists, the employer shall provide at no cost to the employee and ensure that the employee uses appropriate protective equipment. This protective equipment can include:

Coveralls or similar full-body work clothing;

Gloves, head covering, and foot covering; and

Face shields, vented goggles, or other PPE that complies with 29 CFR 1910.133.

Asbestos-contaminated work clothing must be removed in change rooms and placed and stored in closed, labeled containers that prevent distribution of the asbestos into the ambient environment. Protective clothing must be cleaned, laundered, repaired, and replaced to maintain effectiveness.

The employer must provide clean protective clothing and equipment at least weekly to each affected employee. The employer must inform any person who launders or cleans asbestoscontaminated clothing or equipment of the potentially harmful effects of asbestos. In addition, the employer must be certain that the person doing the cleaning or laundering has been properly instructed on how to effectively prevent the release of airborne fibers in excess of the PEL.

Contaminated clothing and equipment taken out of change rooms or the workplace for cleaning, maintenance, or disposal must be transported in sealed impermeable bags, or closed impermeable containers and labeled.

7. Hygiene Facilities and Practices

Employees who are required to work in regulated areas must be provided with clean change rooms, shower facilities, and lunchrooms. Change rooms must have two separate lockers or storage facilities - one for contaminated clothing, and the other for street clothing. They must be far enough apart to prevent accidental contamination of the employee s street cloths. Employees must shower at the end of the shift and cannot leave the workplace wearing any clothing or equipment worn during the work shift. Lunchroom facilities must have a positive-pressure filtered air supply and must be readily accessible to employees.

The employer must ensure that employees do not enter the lunchroom with protective work clothing or equipment unless surface asbestos fibers have been removed by vacuuming or some other method that removes dust without causing the asbestos to become airborne. The employer must also ensure that employees wash their hands prior to eating, drinking, or smoking.

8. Housekeeping

All surfaces must be maintained as free as possible of accumulation of waste containing asbestos. The preferred methods of cleanup are wet cleaning and/or vacuuming. Compressed air must never be used to clean surfaces contaminated by asbestos. Equipment used for cleanup must be emptied in a manner that minimizes the reentry of asbestos into the workplace.

All spills and sudden releases of asbestos or ACM must be immediately cleaned up. The employer also must ensure that sanding asbestos-containing floor is prohibited and that low abrasion pads at speeds lower than 300 rpm and wet methods are used. If a floor has sufficient finish, brushing or dry buffing is permissible. If workers are required to buff or wax asbestos containing resilient floors, building and facility owners must inform employees their employers doing such housekeeping work of the asbestos. Asbestos waste and asbestos-contaminated clothing consigned for disposal must be collected and disposed of in sealed, labeled, impermeable bags or other closed, labeled impermeable containers.

9. Communication of Hazard to Employees

The communication of asbestos hazards to employers and employees are a vital part of the asbestos protection program. Employees engaged in housekeeping activities in public and commercial buildings with installed ACM may be exposed to asbestos fiber. Building owners are often the only and the best source of information concerning the presence of previously installed asbestos containing building materials. The standard requires building owners and employers of potentially exposed employees to institute the following practices:

In buildings built before 1980, treat TSI, sprayed-on, and troweled-on surfacing materials as ACM, unless properly analyzed and found not to contain more than 1 percent asbestos.

Train employees who may come in contact with ACMs to deal with them safely.

Inform employers of employees performing housekeeping activities of the presence and location of ACMs and presumed ACMs that may have contaminated the area.

Asphalt and vinyl flooring installed before 1980 also must be treated as asbestos containing.

Keep records of the presence, location, and quantity of ACMs and PACMs present in the building for the duration of ownership and transfer these records to a successive owner.

Employee information and training

The employer shall institute a training program for all employees who are exposed to asbestos concentration at or above the TWA and/or EL and ensure their participation in the program. Training must be provided prior to or at the time of initial assignment and at least yearly thereafter. The training program must include the following:

- (A.) Health effects associated with asbestos exposure;
- (B.) The relationship between smoking and exposure to asbestos producing cancer;
- (C.) Operations that may release asbestos fiber and response to fiber release episodes;
- (D.) Engineering controls and work practice associated with the employee's assignment;
- (E.) Specific procedures that are implemented to protect employee health;
- (F.) The purpose, proper use, and limitation of respirators and protective clothing;
- (G.) Purpose and description of the medical surveillance program and housekeeping;
- (H.) The contents of the asbestos standard 29 CFR 1910.1001 & appendices;
- (I.) Contact numbers and names for further information on asbestos; and
- (J.) Posting and labeling requirement for asbestos and related materials.

All training materials must be available to the employees at no cost and upon request, to the

Assistant Security for OSHA and the director of NIOSH. Employers must also have a copy of this standard 29 CFR 1910.1001 and its appendices readily available without cost to all affected employees. Copies of OSHA standards can be obtained from government agencies or commercial companies (see resource section of this document).

10. Medical Surveillance

The employer must institute a medical surveillance program for all employees who are or will be exposed to airborne asbestos at or above the TWA and/or EL. All medical examinations and procedures must be performed by or under the supervision of a licensed physician. Such exams must occur at a reasonable time and place and shall be provided at no cost to the employee.

At a minimum, the medical exams must include: medical and work history; a complete physical examination with emphasis on the respiratory system, cardiovascular system, and digestive tract; a chest X-ray; pulmonary function tests; and respiratory disease standard questionnaire as set forth in 29 CFR 1910.1001 appendix D. Chest roentgenogram must be conducted in accordance with the following table:

Table: Frequency of Chest Roentgenogram

Age	of	empl	loyee
6-		r)

	15 to 35	35+ to 45	45+			
first exposure						
0 to 10	Every 5 years	Every 5 years	Every 5 years			
10+Every 5 yearsEvery 2 yearsEvery 1 year						

There are three types of medical examinations that must be given to exposed employees:

- (A.) Pre-placement examination before an employee is assigned to an occupation exposed to airborne concentrations of asbestos above the TWA and/or EL.
- (B.) Periodic examination shall be made available annually
- (C.) Termination examination given within 30 calender days before or after termination of employment, to any employee exposed above the TWA and/or EL.

If adequate records exist that show the employee has been examined in accordance with the standard within the past year, no additional medical exam is required. A pre-employment medical examination may not be used unless the employer pays for it.

The employer must provide the examining physician with a copy of the standard and Appendices D and E; a description of the affected employee s duties as they relate to his or her exposure; the employee s actual or anticipated exposure level; a description of any personal protective and respiratory equipment used or to be used; and information from previous medical examinations. Once the physician has completed the exam, the employer must obtain a written signed opinion from the physician. It must contain the results of the medical examination and the physician s opinion as to whether the employee has any detailed medical conditions that would place the employee at an increased risk from exposure to asbestos; and recommended limitations on the employee or upon the use of PPE such as respirators.

The report should also include a statement that the employee has been informed by the physician of the results of the exam and a statement by the physician of the increased risk of lung cancer attributed to the combined effects of smoking and asbestos exposure.

The physician is not to reveal in the written opinion given to the employer specific findings or diagnoses unrelated to occupational exposure to asbestos. The employer must provide a copy of the physician s written opinion to the affected employee within 30 days of its receipt.

11. Recordkeeping

Accurate employee exposure records must be keep by the employer for up to a minimum of 30 years. The employer also must maintain an accurate record for each employee subject to medical surveillance. The medical surveillance records must be maintained for the duration of employment plus 30 years in accordance with 29 CFR 1910.20.

In addition, the employer must maintain all employee training records for one year beyond the last date of employment by the employee. All records must be made available to the OSHA Assistant Secretary, the Director of NIOSH, affected employees, former employees, and designated representatives. When the employer ceases to do business and there is no successor to receive the records for the prescribed period, the employer must notify the Director of NIOSH at least 90 days prior to the disposal of records.

If handling, using, or processing any products made from or containing asbestos are exempted, the employer must establish and maintain accurate records of objective data that exempt these employer s reliance upon the date. Building and facility owners also are required to maintain records about the presence, location, and quantity of ACM and PACM in the building and/or facility. These records must be kept for the duration of ownership and must be transferred to the successive owners.

Resources

Private Sector and Public Sector Employers

Consultation assistance is available on request to private employers who want help in establishing and maintaining a safe and healthful workplace. Largely funded by OSHA, the service is provided at no cost to the employer. Primarily developed for smaller employers with more hazardous operations, the consultation service is provided by The Department of Labor, Safety Bureau. Comprehensive assistance includes an appraisal of all mechanical, physical work practices, and environmental hazards of the workplace and all aspects of the employer s present job safety and health program.

Public employers (state agencies, city and county governments, and school districts) may also request assistance with this standard.

The program is separate from OSHA=s inspection efforts, no penalties are proposed or citations issued for any safety or health problems identified by the consultant. This service is also confidential.

For additional information on the consultation service please contact:

Safety & Health Bureau
Department of Labor and Industry
P.O. Box 1728
Helena, MT 59624
(406) 444-6401

Schools - AHERA

The asbestos hazard Emergency Resource Act (AHERA) of 1986 requires all public and private schools to implement a program of identification and control of asbestos hazards on their premises. This EPA law is administered by the Montana Department of Environmental Quality. For assistance contact the Air and Water Waste Management Bureau of the Enforcement Division, (406) 444-3490. Information on asbestos abatement permitting can also be obtained at this number.

Additional information about asbestos and OSHA standards are available from the following sources:

Books and Manuals

Control of Asbestos Exposure During Brake Drum Service, U.S. Department of Health and Human Services., Cincinnati, Ohio, 1989.

Web Sites and Contact Numbers

1. **National Institute for Occupational Safety and Health**, (**NIOSH**). Department of Health and Human Services, 200 Independence Ave. SW317B, Washington, DC, 20201. 1-800-356-4674, 1-800-35-NIOSH. www.niosh.gov

2. U.S. Department of Labor, **Occupational Safety & Health Administration**, **(OSHA)**. Public Affairs Office- Room 3647, 200 Constitution Ave. Ashington, D. C. 20210. 1-202-693-1999.

www.osha.gov

3. American Conference of Governmental Industrial Hygienists, (ACGIH). 1330 Kemper Meadow Drive, Cincinnati, OH 45240-1634. 1-513-742-2020 www.acgih.org

4. **The Government Printing Office (GPO)** processes all sales and distribution of the CFR. For payment by credit card, call 202-512-1800, M-F, 8 a.m. to 4 p.m., or fax your order to 202-512-2233. For payment by check write to Superintendent of Documents, Attn: New Orders, PO Box 371954, Pittsburgh, PA 15250-7954. For GPO Customer Service call 1-202-512-1803.

Regulatory references are also available in some commercial safety catalogs.

5. Lab Safety Supply Inc., PO Box 1368, Janeville, WI 53547-1368. Phone: 1-800-356-2501, Fax: 1-800-393-2287. www.labsafety.com

6. J. J. Keller & Associates, Inc., 3003 W. Breezewood Lane, PO Box 368, Neenah, WI 54957-0368 Free safety catalog available.

Phone: 1-800-531-8899, Fax: 1-800-727-7547.

www.jjkeller.com